



IN THE CLAIMS:

Please amend claims 34-51 and 53-70 and add claim 71 as follows.

Claims 1-33 (Cancelled)

34. (Currently Amended) A method, comprising: for performing random access in a mobile communication network having a base transceiver station and a plurality of mobile stations, comprising the steps of:

a) transmitting from said a base transceiver station of a mobile communication network to said a plurality of mobile stations of the mobile communication network a parameter defining allowed access slots of at least one physically existing random access channel[[,]];

b) receiving said parameter at a mobile station and determining, at said mobile station, said allowed access slots based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots for initiating a random access operation to said base transceiver station.

35. (Currently Amended) A The method according to claim 34, comprising transmitting wherein said parameter is transmitted via a broadcast channel.

36. (Currently Amended) A The method according to claim 35, wherein said broadcast channel is the Broadcast Channel of a Wideband Code Division Multiple Access system.

37. (Currently Amended) A The method according to claim 35, comprising initiating ~~wherein~~ said random access operation ~~is performed~~ via the Physical Random Access Channel uplink channel and the Acquisition Indication Channel downlink channel of the Wideband Code Division Multiple Access system.

38. (Currently Amended) A The method according to claim 34, wherein said parameter defines a subset of available access slots of said mobile communication network.

39. (Currently Amended) A The method according to claim 38, comprising determining ~~wherein~~ said subset ~~is determined~~ by another parameter transmitted from said base transceiver station to said mobile station.

40. (Currently Amended) A The method according to claim 39, wherein said other parameter is a timing parameter defining a transmission timing of an uplink access slot.

41. (Currently Amended) A The method according to claim 39, comprising transmitting ~~wherein~~ said other parameter ~~is transmitted~~ via a broadcast channel.

42. (Currently Amended) A The method according to claim 39, comprising changing ~~wherein~~ the bit number of said parameter ~~is changed~~ in dependence on said other parameter.

43. (Currently Amended) A The method according to claim 42, comprising disabling ~~wherein~~ a transmission of a preamble signature or an acquisition indication ~~is disabled~~ in dependence of the value of said parameter.

44. (Currently Amended) A The method according to claim 42, comprising calculating ~~wherein~~ an index of an allowed uplink access slot ~~is calculated~~ on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot.

45. (Currently Amended) A method, comprising: ~~for performing random access in a mobile communication network having a base transceiver station and a plurality of mobile stations, said method comprising the steps of:~~

a) transmitting from ~~said~~ a base transceiver station of a mobile communication network to ~~said~~ a plurality of mobile stations of the mobile communication network a

parameter defining allowed access slots of at least one physically existing random access channel;

b) receiving said parameter at a mobile station and determining, at said mobile station, said allowed access slots based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots for performing a random access operation to said base transceiver station,

wherein said parameter defines a subset of available access slots of said mobile communication network,

wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station,

wherein the bit number of said parameter is changed in dependence on said other parameter,

wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 3 \cdot N + (F \text{ modulo } 3)$$

where $0 \leq N \leq 2$,

wherein F and N are integer numbers, and F denotes said frame number, and wherein only access slots having indices within the range 0 to 7 are valid.

46. (Currently Amended) A method, comprising: for performing random access in a mobile communication network having a base transceiver station and a plurality of mobile stations, said method comprising the steps of:

a) transmitting from said a base transceiver station of a mobile communication network to said a plurality of mobile stations of the mobile communication network a parameter defining allowed access slots of at least one physically existing random access channel;

b) receiving said parameter at a mobile station and determining, at said mobile station, said allowed access slots based on said parameter; and

c) using, at said mobile station, at least one of said determined allowed access slots for performing a random access operation to said base transceiver station

wherein said parameter defines a subset of available access slots of said mobile communication network,

wherein said subset is determined by another parameter transmitted from said base transceiver station to said mobile station,

wherein the bit number of said parameter is changed in dependence on said other parameter,

wherein an index of an allowed uplink access slot is calculated on the basis of the value of said parameter and a frame number of a frame used for transmitting an uplink access slot,

wherein said index is calculated by using the equation

$$i = 4 \cdot N + (\Gamma \text{ modulo } 4)$$

where $0 \leq N \leq 3$,

wherein Γ and N are integer numbers, and Γ denotes a frame number indicating two consecutive frame numbers of said frame used for transmitting an uplink access slot, and wherein only access slots having indices within the range 0 to 14 are valid.

47. (Currently Amended) A ~~The~~ method according to claim 45, wherein said parameter determines an offset to be added to said calculated index.

48. (Currently Amended) A ~~The~~ method according to 34, comprising determining ~~wherein~~ an index of an allowed uplink access slot ~~is determined~~ on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

49. (Currently Amended) A ~~The~~ method according to claim 34, comprising determining ~~wherein~~ an allowed downlink slot ~~is determined~~ by adding a predetermined value to an index of a received uplink slot.

50. (Currently Amended) A ~~The~~ method according to claim 49, comprising selecting ~~wherein~~ said predetermined value ~~is selected~~ in accordance with a timing parameter defining a transmission timing of said uplink slot.

51. (Currently Amended) A The method according to claim 34, wherein bit values of a binary expression of said parameter determines a combination of calculated indices obtained for other values of said parameter, said other values corresponding to the binary weights of said binary expression.

52. (Previously Presented) A system for performing random access in a mobile communication network, comprising:

- a) a base transceiver station arranged for transmitting a parameter defining allowed access slots of at least one physically existing random access channel; and
- b) a plurality of mobile stations arranged for receiving said parameter, for determining said allowed access slots based on said parameter, and for using at least one of said determined allowed access slots for initiating a random access operation to said base transceiver station.

53. (Currently Amended) A The system according to claim 52, wherein said network element is a Wideband Code Division Multiple Access base transceiver station and said mobile station is a Wideband Code Division Multiple Access mobile station.

54. (Currently Amended) A network element for a mobile communication network comprising a plurality of mobile stations ~~station~~, comprising:

a) setting means for setting a parameter defining allowed access slots of at least one physically existing random access channel, via which allowed access slots a random access operation to the network element to be initiated; and

b) transmitting means for transmitting said parameter to said plurality of mobile stations.

55. (Currently Amended) A The network element according to claim 54, wherein said network element is a Wideband Code Division Multiple Access base transceiver station.

56. (Currently Amended) A The network element according to claim 54, wherein said transmitting means is arranged to transmit said parameter via a broadcast channel.

57. (Currently Amended) A The network element according to claim 54, wherein said setting means is arranged to set said parameter in dependence on a timing parameter value defining a transmission timing of an uplink access slot in said random access operation.

58. (Currently Amended) A mobile station for a mobile communication network having at least one network element allowing a random access operation, comprising:

a) ~~receiving means for receiving~~ a receiving unit configured to receive from said network element a parameter defining allowed access slots of at least one physically existing random access channel for said random access operation;

b) ~~determining means for determining~~ a determining unit configured to determine said allowed access slots based on said parameter received from said network element;
and

c) ~~transmitting means for initiating transmission~~ a transmitting unit configured to initiate transmission of a random access message to said network element using at least one of said determined allowed access slots.

59. (Currently Amended) A The mobile station according to claim 58, wherein said receiving ~~means-unit~~ is arranged to receive said parameter via a broadcast channel.

60. (Currently Amended) A The mobile station according to claim 59, wherein said determining ~~means-unit~~ is arranged to determine said allowed access slots on the basis of said received parameter and a timing parameter received via said broadcast channel.

61. (Currently Amended) A The mobile station according to claim 58, wherein said determining ~~means-unit~~ is arranged to calculate an index of an allowed uplink access slot on the basis of the value of said received parameter and a frame number of a frame used for transmitting an uplink access slot.

62. (Currently Amended) A The mobile station according to claim 58, wherein said determining ~~means-unit~~ is arranged to determine an index of an allowed uplink access slot on the basis of the value of said parameter irrespective of a frame number of a frame used for transmitting an uplink access slot.

63. (Currently Amended) A The mobile station according to claim 58, wherein a selection ~~means-unit~~ is provided for randomly selecting from allowed access slots determined by said determining ~~means-unit~~ an uplink access slot to be used for transmitting a preamble of said random access message.

64. (Currently Amended) A The mobile station according to claim 63, wherein consecutive preambles are transmitted a predetermined number of access slots apart.

65. (Currently Amended) A The mobile station according to claim 64, wherein said predetermined number depends on a timing parameter received by said receiving ~~means~~ unit.

66. (Currently Amended) A The mobile station according to claim 64, wherein said selection ~~means-unit~~ is arranged to perform said random selection any time a preamble needs to be transmitted.

67. (Currently Amended) A method, comprising: for performing random access in a mobile communication network, comprising the steps of:

a) receiving a parameter defining allowed access slots of at least one physically existing random access channel for a random access operation in a mobile communication network;

b) determining said allowed access slots based on said parameter; and

c) initiating transmission of a random access message using at least one of said determined allowed access slots.

68. (Currently Amended) A method, comprising: for performing random access in a mobile communication network, comprising the steps of:

a) receiving information about a set of available uplink access slots of a random access channel in a mobile communication network;

b) deriving available uplink access slots, in a next full access slot set, for the set of available uplink access slots; and

c) randomly selecting one access slot among the available uplink access slots for initiating a random access procedure.

69. (Currently Amended) A method, comprising: for performing random access in a mobile communication network, comprising the steps of:

a) receiving a set of available Random Access Channel sub-channels in a mobile communication network, a Random Access Channel sub-channel defining a sub-set of a total set of uplink access slots;

b) deriving available uplink access slots, in a next full access slot set, for the set of available Random Access Channel sub-channels; and

c) randomly selecting one access slot among the available uplink access slots for initiating a random access procedure.

70. (Currently Amended) A method, comprising: for performing random access in a mobile communication network, comprising the steps of:

a) receiving an access parameter message sent on a broadcast channel in a mobile communication network, the access parameter message defining allowed transmission slots in which random access channel transmissions are limited to occur, wherein the allowed transmission slots are dictated by slot offset and slot duration parameters;

b) calculating an allowed transmission slot based on the slot offset and slot duration parameters; and

c) initiating transmission of a random access message using the allowed transmission slot.

71. (New) An apparatus, comprising:

a) receiving means for receiving from said network element a parameter defining allowed access slots of at least one physically existing random access channel for said random access operation;

b) determining means for determining said allowed access slots based on said parameter received from said network element; and

c) transmitting means for initiating transmission of a random access message to said network element using at least one of said determined allowed access slots.